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(54) **OPTICAL DESIGN FOR LINE GENERATION USING MICROLENS ARRAY**

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　　B23K 26/06　　　　(2014.01)
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　　CPC *B23K 26/0648* (2013.01); *B23K 26/00* (2013.01); *B23K 26/0006* (2013.01);
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(57)　　　　　　**ABSTRACT**

Embodiments of the present disclosure relate to an apparatus for thermally processing a semiconductor substrate. In one embodiment, the apparatus includes a substrate support, a beam source having a fast axis for emitting a beam along an optical path intersecting the substrate support, and a homogenizer disposed along the optical path between the beam source and the substrate support. The homogenizer comprises a first lens array, and a second lens array, wherein lenses of the second lens array have a larger lenslet array spacing than lenses of the first lens array.

19 Claims, 5 Drawing Sheets